

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 1-3.

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) An assembly, comprising:
 2 a printed circuit assembly with a pad layout pattern; and
 an area array package with a pad layout pattern attached to the
 4 printed circuit assembly; wherein at least one of the pad layout of the printed
 circuit assembly or the pad layout of the area array package has an offset
 6 pad layout relative to the other pad layout.~~An assembly in accordance with~~
 claim 3, , wherein said pad layout of the area array package is in a regular
 8 grid pattern, wherein said pad layout of the printed circuit assembly is offset
 with regularly spaced small groupings of pads corresponding to the pads to
 10 be bonded on the area array package.

5. (original) An assembly in accordance with claim 4, wherein the
 2 regularly spaced small groupings of pads on the printed circuit assembly
 comprise four pads offset toward each other dispersed on the printed circuit
 4 assembly to correspond with the pads to be bonded on the area array
 package.

6. (Currently Amended) A method for manufacturing an assembly
 2 comprising:
 obtaining an area array package having a pad layout pattern;

4 obtaining a printed circuit assembly having a pad layout pattern
corresponding to the pad layout pattern of the area array package;
6 and
 attaching the area array package pad layout pattern to the printed
8 circuit assembly pad layout pattern, wherein at least one pad layout
pattern is a regular grid pattern and the other pad layout pattern is offset
10 relative to the regular grid pattern, wherein said pad layout of the printed
circuit assembly is offset with regularly spaced small groupings of pads
12 corresponding to the pads to be bonded on the area array package.

7. (Original) A method for detecting offset solder joint defects
between solder pads on an area array package attached to offset solder
pads on a printed circuit assembly, comprising the steps of:
 measuring a characteristic of an offset solder joint;
5 determining a value for an acceptable offset solder joint; and
 comparing the measured offset solder joint characteristic value with
the acceptable offset solder joint characteristic value.
8. (Original) A method in accordance with claim 7, further comprising
2 the step of:
 generating an error value for the solder joint.
9. (Original) A method in accordance with claim 8, further comprising
2 the step of:
 determining if the solder joint is defective.